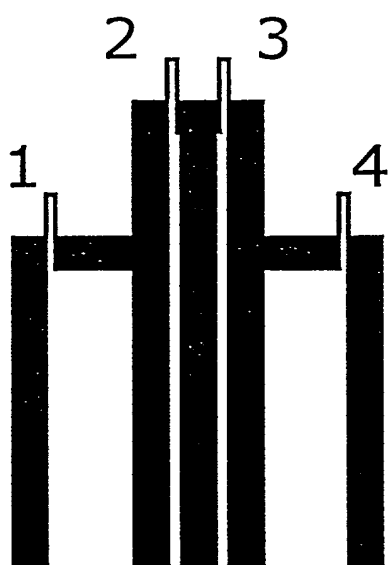
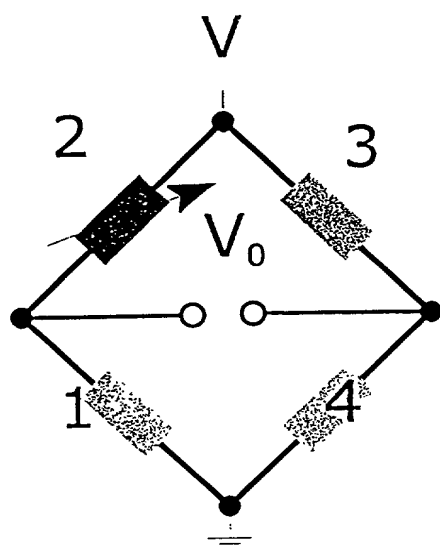
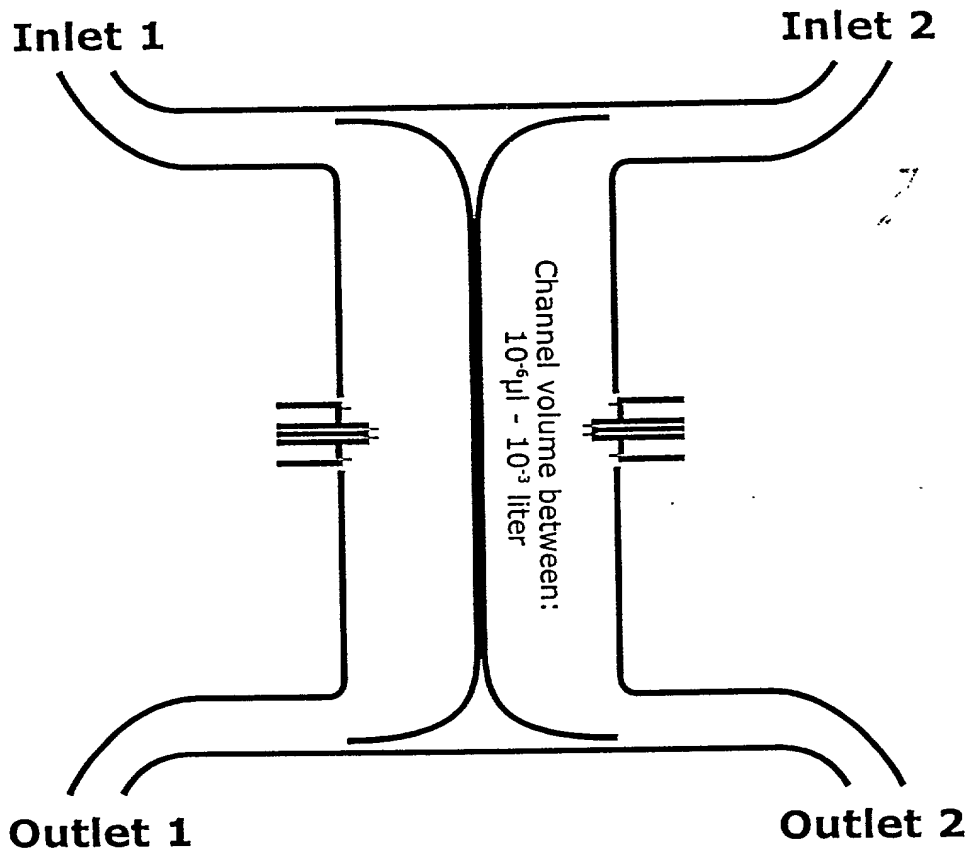


[illegible]

2

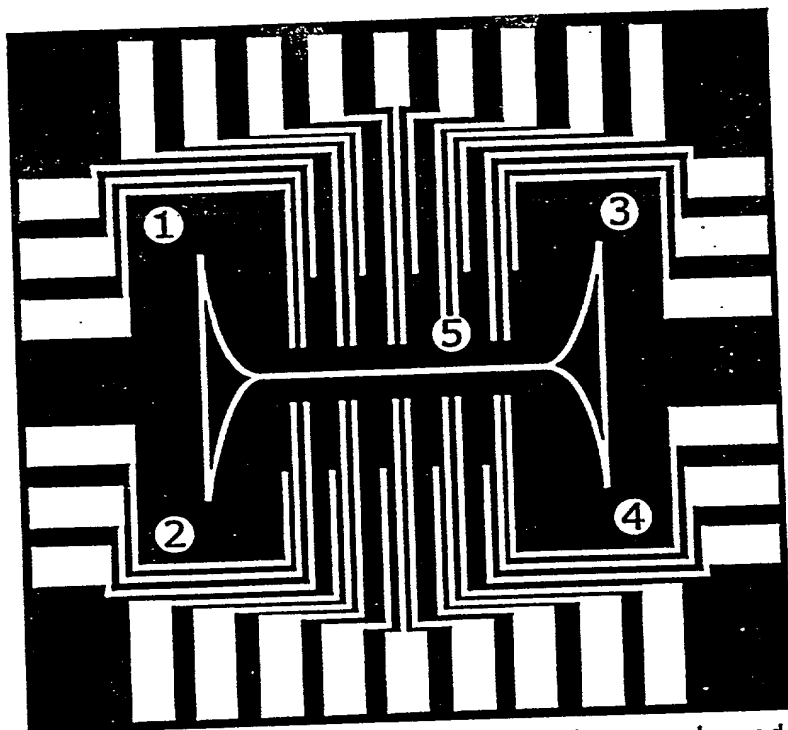
60630" T 9111660





Flow channel from above

A.



Micro-cantilever, enlarged

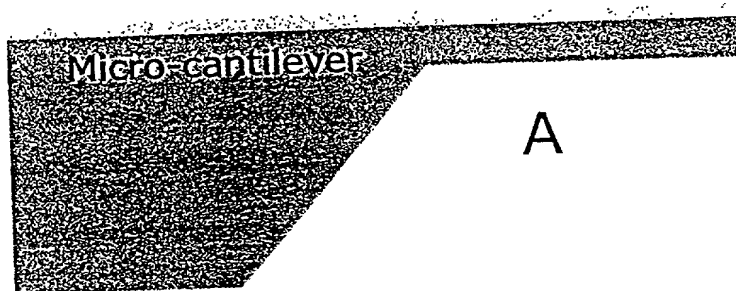
Channel volume between:
 $10^{-6}\mu\text{l}$ - 10^{-3} liter

B.

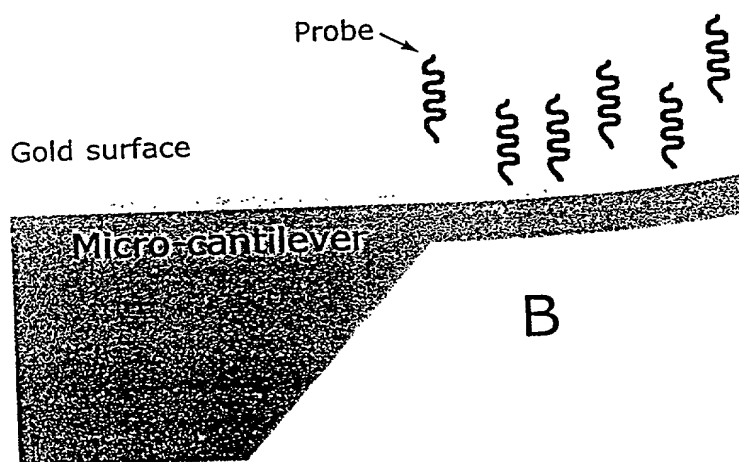


Micro-cantilever, actual size

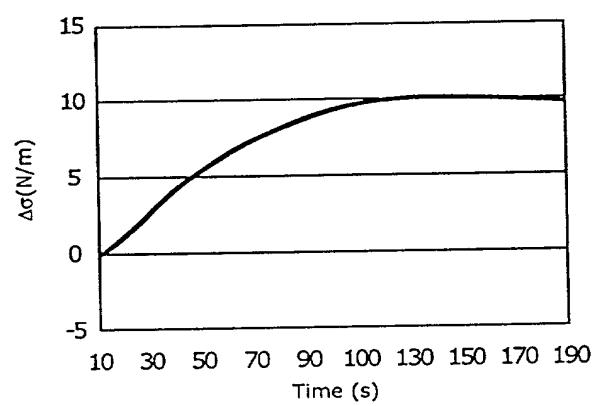
Gold surface



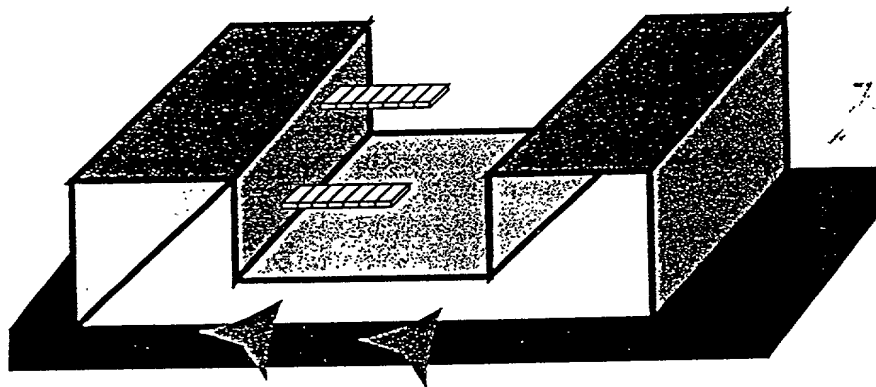
- The oscillating cantilever



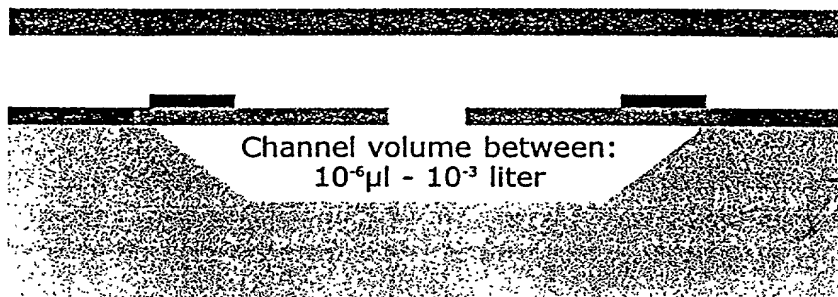
- The oscillating cantilever with attached probe

[illegible]

Channel volume between:
 $10^{-6}\mu\text{l}$ - 10^{-3} liter



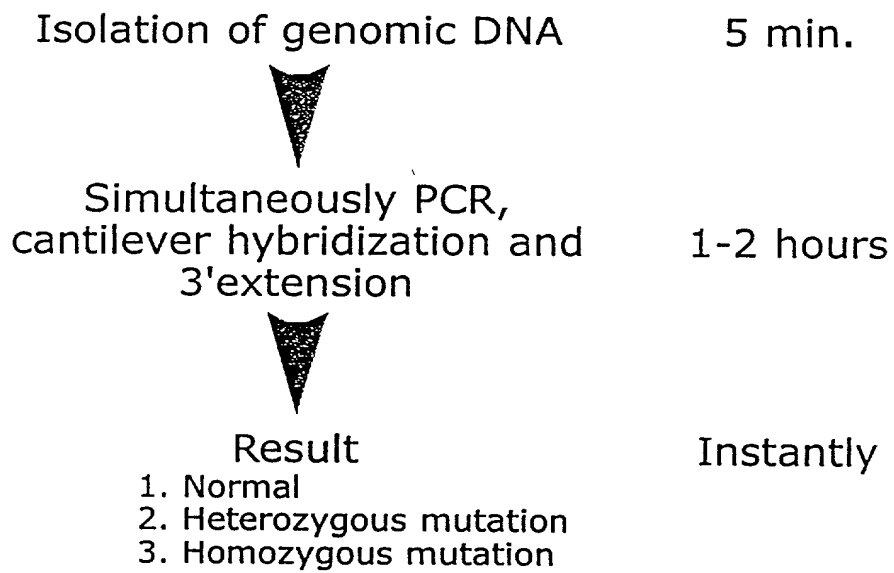
Flow channel from side in 3D



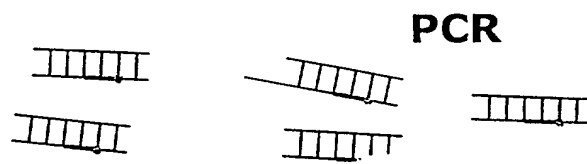
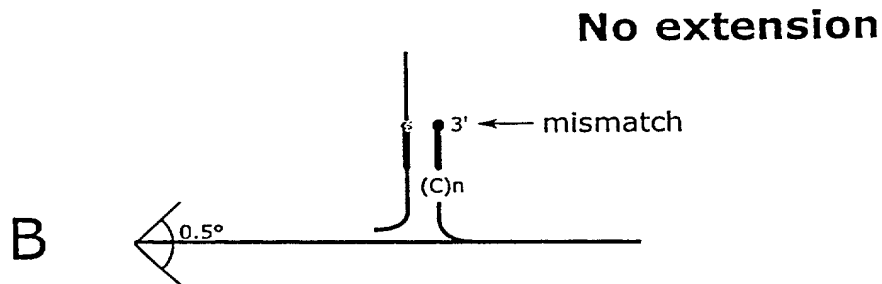
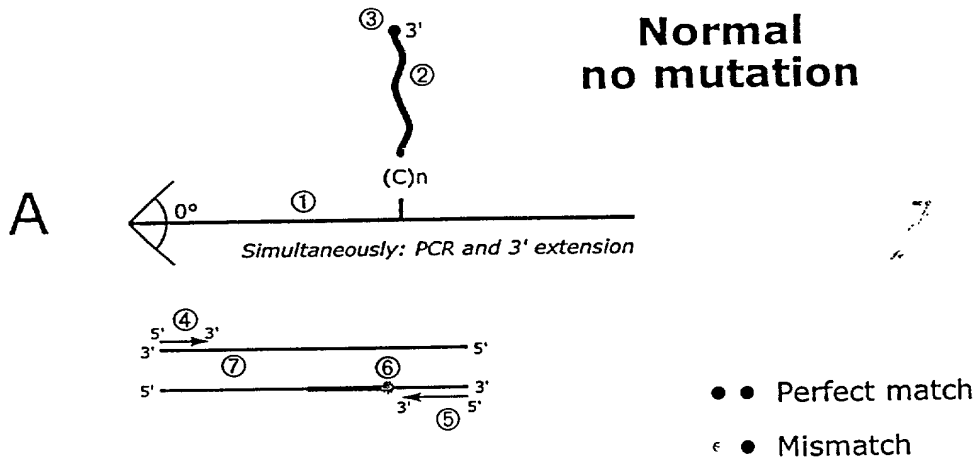
Flow channel cut-through

Flowchart for mutation detection

Time

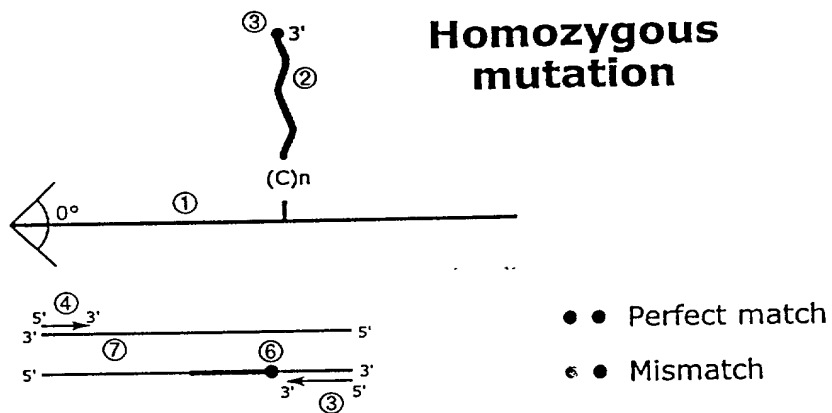


Start material: DNA

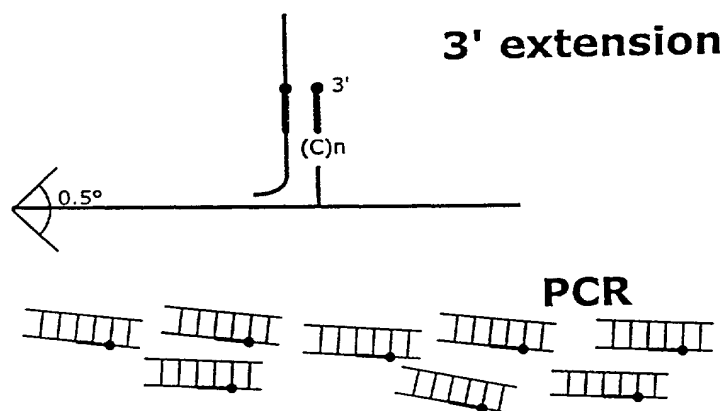


Homozygous mutation

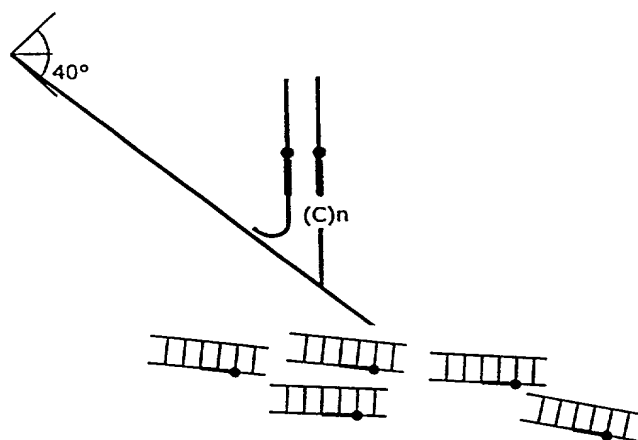
A



B

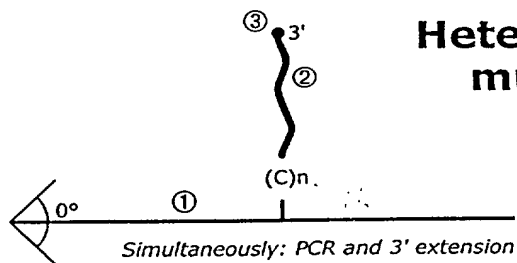


C



Heterozygous mutation

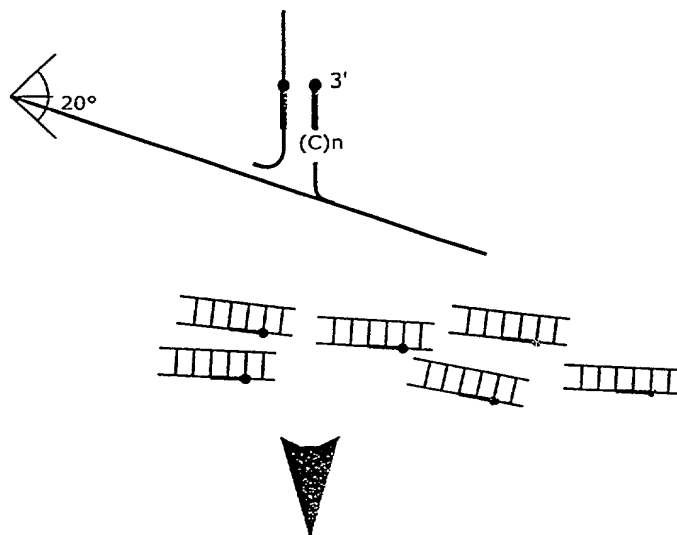
A



• • Perfect match

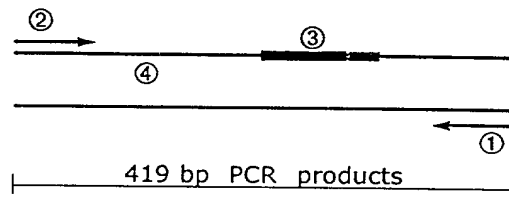
• • Mismatch

B



1/2 signal
compared to
homozygous mutation

Detection of $\Delta 508$ mutation of the Cystic Fibrosis gene



**Flowchart
for specific detection
of RNA molecules**

Time

Isolation of RNA

30 min.



Simultaneously RT, PCR,
cantilever hybridization and
3'extension

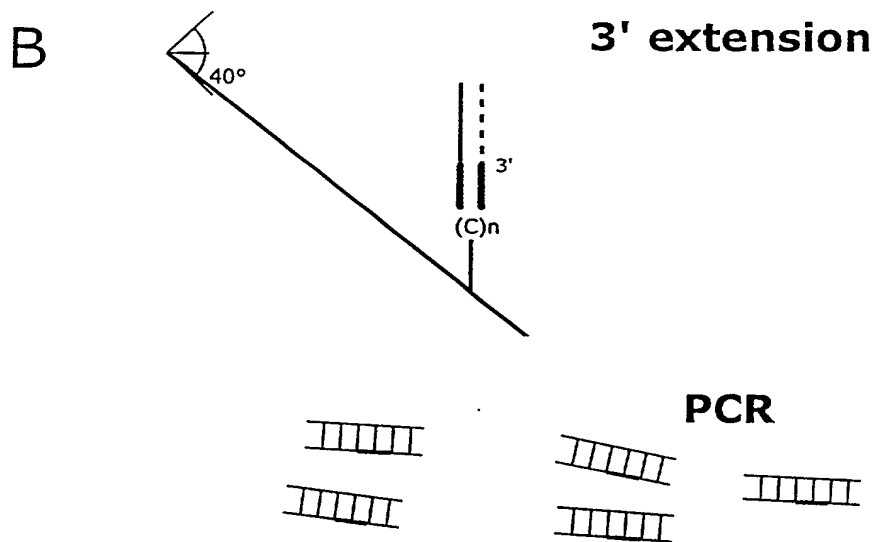
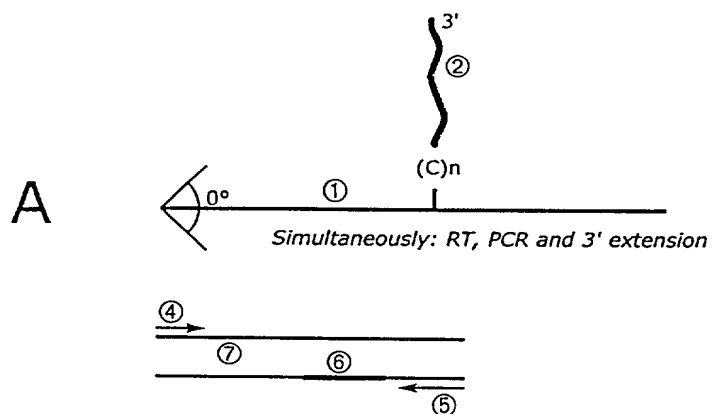
1-2 hours



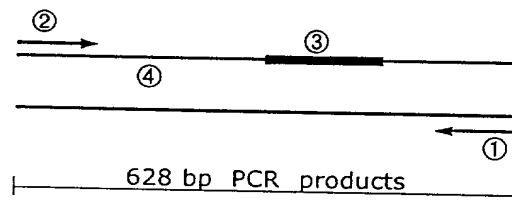
Result

Instantly

Start material: RNA



Detection of Interleukin 6 (IL6)



Detection of Glyceraldehyde-3-Phosphate- dehydrogenase (GAPD)

